

Unit Planning Guide: Grade 5 Unit 3 of 9

Unit Title: Multiplying and Dividing with Whole Numbers and Decimals	Pacing (Duration of Unit): 4 Weeks
Grade: 5	Buffer Day(s): 1 week

Desired Results

Transfer Goals (Priority practice standards in **bold**)

Students will be able to independently use their learning to:

- MP.1. **Make sense of problems and persevere in solving them.**
- MP.2. Reason abstractly and quantitatively.
- MP.3. Construct viable arguments and critique the reasoning of others.
- MP.4. **Model with mathematics.**
- MP.5. Use appropriate tools strategically.
- MP.6. **Attend to precision.**
- MP.7. Look for and make use of structure.
- MP.8. Look for and express regularity in repeated reasoning.

Established Goals (2011 MA Curriculum Frameworks Standards Incorporating the Common Core State Standards)

Prerequisite Standards:

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Standards (Priority Standards in **bold**):

- 5.NBT.3: Read, write, and compare decimals to thousandths.
 - 5.NBT.3a: Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.
 - 5.NBT.3b: Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.
- 5.NBT.4: Use place value understanding to round decimals to any place.
- **5.NBT.5: Fluently multiply multi-digit whole numbers using the standard algorithm.**

WIDA for English Language Learners

Standard 1: ELLs **communicate** for **Social** and **Instructional** purposes within the school setting
 Standard 3: ELLs **communicate** information, ideas and concepts necessary for academic success in the content area of **Mathematics**

In the lesson planning stage, teachers will need to differentiate lessons for ELLs. In order to accomplish this they will need: 1.) this curriculum map, 2.) a list of their ELLs and their proficiency levels, and 3.) appropriate language

<ul style="list-style-type: none"> • 5.NBT.6: Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. • 5.NBT.7: Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. 	function expectations and scaffolds or supports.

<p align="center">Meaning (*Mostly assessed through Performance Tasks/Assessments)</p>

<p>Big Ideas:</p> <ul style="list-style-type: none"> • There are a variety of strategies models that can be used to represent and solve numerical expressions. • The standard algorithm for multiplication is the most efficient. • Relationship between multiplication and division (inverse operations). • Relationship between addition and multiplication, and subtraction and division. • The rules for multiplication and division of whole numbers apply to decimals. 	<p>Essential Questions: (Questions which frame ongoing and important inquiries about the big ideas. They are written for students and used in daily instruction to help engage students in meaningful thinking.)</p> <ul style="list-style-type: none"> • How do we solve problems with whole numbers and decimals? • Why is place value important when multiplying and dividing whole numbers and decimals? • What questions can be answered by multiplying and dividing whole numbers and decimals? • How are multiplication and division of whole numbers related to multiplication and division of decimals?
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<p align="center">Acquisition (*Mostly assessed through traditional summative assessments)</p>

<p>Knowledge: Key basic concepts, facts, and key terms (written in phrases) students should be able to recall independently.</p> <p>Students will know...</p> <ul style="list-style-type: none"> • The relationship between multiplication and division(inverse operations) • The rules of multiplication and division of whole numbers and decimals are the same. <p>Key Academic Vocabulary:</p> <ul style="list-style-type: none"> • Multiplication Standard Algorithm • Division Standard Algorithm • Visual Representations(array, area model, drawings) • Quotient, Divisor, Dividend • Factor, Product, Multiple 	<p>Skills: The discrete skills and process students should be able to use independently</p> <p>Students will be skilled at:</p> <ul style="list-style-type: none"> • Computing products of multi-digit whole numbers using the standard algorithm fluently. (Applying) • Formulating solutions to whole number quotients of whole numbers using multiple strategies/methods. (Creating) • Selecting and Using appropriate methods/strategies to solve multiplication and division of whole numbers and decimals. (Applying and Creating) • Estimating reasonableness of answers. (Evaluating)
<p>Resource Suggestions:</p>	